REMARKS

Claims 1-5, 7-18 and 20-30 are pending in this application after entry of this Amendment. Claims 1-5, 7-18 and 20-29 are rejected. Claim 30 is newly added. No new matter has been added. It is respectfully submitted that the pending claims define allowable subject matter.

As an initial matter, if this Amendment does not place the application in condition for allowance, Applicants respectfully request a telephone interview between the Examiner and the undersigned.

Claims 1-3, 5, 7-18 and 24-29 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over McCartan et al. (U.S. Patent 6,270,460), hereafter McCartan in view of Wakabayashi et al. (U.S. Patent 5,487,386), hereafter Wakabayashi. Claims 4 and 20-23 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over McCartan in view of Wakabayashi, and further in view of Ramamurthy et al. (U.S. Patent 7,156,551), hereafter Ramamurthy. Applicants respectfully traverse these rejections for at least the reasons set forth below.

Independent claim 1 recites a method for tracking use of an ultrasound probe including, "storing probe identification information and different types of tracking information within a memory in a connector of an ultrasound probe removably connectable to an ultrasound system, wherein the different types of tracking information include duration of use information and at least one of length of time between scans information and probe usage pattern information, the probe usage pattern information including at least a length of time for each use" and "accessing the stored tracking information within the connector of the ultrasound probe." This claim requires that the usage pattern information that is stored and accessed include at least *a length of time for each use*.

The Office Action states that the cited references teach cumulative time use and therefore saves the time of each use, thereby meeting the limitations as claimed (Office Action, page 7). Applicants respectfully disagree.

As conceded by the Office Action, McCartan does not teach that the data stored is duration of use information and probe usage pattern information (Office Action, page 3). The Office Action then states that Wakabayashi makes up for this deficiency. Wakabayashi discloses an ultrasound system that measures cumulative operation time of an ultrasonic probe and stores the sum of the operating time for a corresponding probe. Wakabayashi is clear that with respect to the operating time, the only information stored is a cumulative operation time. Although, the continuous operation time is determined and used to update the cumulative operation time, that cumulative operation time, for example, for the time for each use is NOT stored. Claim 1 requires that the usage pattern information include at least *a length of time for each use* and that such information is stored. Moreover, there is no way to access or determine in the probe of Wakabayashi the length of time for each use, as such information is not stored. There is simply no way to determine from the total cumulative operation time, a length of time for each use. Accordingly, Applicants submit that claim 1 is allowable.

Applicants have amended independent claim 24 to recite an ultrasound system including, among other elements "an ultrasound probe having a connector for removable connection to the ultrasound scanner, the connector having a memory for storing probe identification information and different types of tracking information, wherein the different types of tracking information include duration of use information, length of time between scans information, probe usage pattern information and mode of operation information, the probe usage pattern information including at least a length of time for each use."

Independent claim 24 now requires that the connector have a memory for storing all of the different types of tracking information including duration of use information, length of time between scans information, probe usage pattern information and mode of operation information, wherein the probe usage pattern information includes at least a length of time for each use. References relied upon to reject a claim must teach each and every claim recitation. None of the cited references, alone or in combination, teach or suggest all of the different types of tracking

information as required by amended claim 24. Accordingly, Applicants submit that claim 24 is allowable.

With respect to the rejection of claim 20, the Office Action states that "Ramamurthy teaches a method of checking faults in ultrasound equipment (title) using temperature" and further teaches "this as being used to upgrade ultrasound equipment." (Office Action, pages 6 and 7). The Office Action then asserts that a thermistor is merely another well known device for tracking temperature and therefore it's use in tracking temperature is neither new nor surprising (Office Action, page 7), even though Ramamurthy fails to teach such a thermistor.

A reference as a whole must teach the claimed invention. In the present case, the Ramamurthy reference as a whole teaches away from using a device other than the probe to measure temperature. Specifically, as Applicants previously noted, the Background section of Ramamurthy states the following with respect to the use of thermistors:

> The IEC standards require that an ultrasound transducer temperature not exceed a predetermined limit of 43 deg C. Some ultrasound probes include one or more thermistors added to the stack of the transducer. The thermistors provide a level of fault protection by measuring temperature of the ultrasound transducer and activating a series of protective measures when the temperature reaches a certain value. However, *adding thermistors to ultrasound transducer increases the cost of transducers; consequently, most transducers are not built with thermistors. It may be difficult, problematic or impossible to add thermistors to an already existing transducer* (col. 1, lines 13-28, emphasis added).

Ramamurthy solves the problem by measuring temperature without using thermistors. Regardless of whether the use of thermistor is new or surprising, Applicants submit that

Ramamurthy specifically teaches away from using a thermistor. A reference that teaches away cannot be used to support a rejection. Accordingly, Applicants submit that claim 20 is allowable.

Applicants further submit that dependent claims 2-5, 7-18, 21-23 and 25-29, as well as newly added dependent claim 30 recite further subject matter not anticipated or rendered obvious by the cited references. Moreover, with respect to newly added claim 30, although the cited references teach measuring probe usage time, none of the references teach or suggest storing length of time between scans information determined using a timer within the ultrasound probe that is configured to measure the time between when the ultrasound probe is removed and then connected to the ultrasound system. The configuration of the timers in the cited references provides time usage measurements during probe operation and not when the probe is not in use. The turning off of the probe does not affect duration of use (Office Action, page 5) and nothing in the cited references teach or suggest the continued use of the timer after the probe is turned off.

Moreover, dependent claims 2-5, 7-18, 21-23 and 25-30 are likewise patentable based at least on the dependency of these claims from the independent claims.

There may be additional reasons to the reasons described herein or herebefore that claims 1-5, 7-18 and 20-30 are each patentable over the cited references. Without waiver of such additional reasons, Applicants reserve the right to argue such additional reasons hereafter.

In view of the foregoing amendments and remarks, it is respectfully submitted that the cited references neither anticipate nor render obvious the claimed invention and the pending claims in this application are believed to be in condition for allowance. Reconsideration and favorable action is respectfully solicited.

Respectfully submitted,

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